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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/997,347	11/29/2001	Julia MacLachlan	1-15092	6062

1678 7590 06/21/2004

MARSHALL & MELHORN  
FOUR SEAGATE, EIGHT FLOOR  
TOLEDO, OH 43604

EXAMINER
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ROSSI, JESSICA

ART UNIT	PAPER NUMBER
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1733

DATE MAILED: 06/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/997,347

Applicant(s)

MACLACHLAN, JULIA

Examiner

Jessica L. Rossi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 3/24/04, Amendment.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 23-38 is/are pending in the application.
- 4a) Of the above claim(s) 34-38 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 23-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>4/9/04</u> . | 6) <input type="checkbox"/> Other: _____  |

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**DETAILED ACTION**

***Response to Amendment***

***Election/Restrictions***

1. Newly submitted claims 34-38 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons (note new claim 23 is a combination restating limitations that were presented in the originally filed claims, which were addressed in the previous office action):

Inventions I (claims 23-33) and II (claims 34-38) are distinct method combinations. Each group relies on different elements for patentability not required by the other. Invention I requires adhering an item to an area of a surface of a vehicle glazing after a hydrophobic coating has been removed from the area using UV radiation whereas Invention II does not. Invention II requires utilizing electro-mechanical means to provide relative movement between the source of UV radiation and the hydrophobic coating whereas Invention I does not.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 34-38 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

2. This action is in response to the amendment dated 3/24/04. Claims 1-22 were canceled. Claims 23-38 were added. Claims 34-38 are withdrawn from further consideration for the reasons set forth above.

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3. The rejection of claims 1-2, 5, and 15 under 35 U.S.C. 102(b) as being anticipated by Cole et al. ('085), as set forth in paragraph 9 of the previous office action, has been withdrawn in light of the method now being directed to a vehicle glazing.
4. The rejection of claims 1, 5, and 15 under 35 U.S.C. 102(b) as being anticipated by Blum et al. ('632), as set forth in paragraph 10 of the previous office action, has been withdrawn in light of the method now being directed to a vehicle glazing.
5. The rejection of claims 1-3, 5, 9-10, and 15 under 35 U.S.C. 102(e) as being anticipated by Van Der Putten et al. ('059), as set forth in paragraph 12 of the previous office action, has been withdrawn in light of the method now being directed to a vehicle glazing.
6. The Anderson ('365) reference was removed as a secondary reference for modifying the Hartig ('180) reference because the limitation pertaining to the hydrophobic coating being organic was taken out of the claims.

***Claim Rejections - 35 USC § 112***

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.
8. Claims 23-33 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

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With respect to claim 23, the specification does not have support for "the surface being exposed to the exterior of the vehicle" (line 2).

Regarding claim 26, the specification does not have support for the water contact angle being equal to 100 degrees (line 2), irradiating for 120 seconds (line 3), or the water contact angle being equal to 30 degrees (line 4).

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 24 and 27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 24 and 27, it is unclear what Applicant means by this language. Applicant is asked to clarify. It appears Applicant intended to use Markush language and should redraft the claims according to MPEP § 2173.05(h); specifically, "or" should be replaced by -- and--.

***Claim Rejections - 35 USC § 103***

11. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

12. Claims 23-24 and 26-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Curtze (US 4543283; of record) in view of Tweadey et al. (US 5131967; of record).

*\*The following rejection is set forth as though the limitation pertaining to the surface being exposed to the exterior of the vehicle was not present.*

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With respect to claim 23, Curtze is directed to a vehicle glazing 10 comprising a glass substrate 12, an adhesive 16, an anti-lacerative sheet 14 with a functional coating (not shown) on the entire surface of the anti-lacerative sheet (Figure 2; column 4, lines 21-23; column 7, lines 8-10). The reference teaches the coating being silica-reinforced methyl-siloxane (column 8, lines 19-21), which the skilled artisan would have appreciated as being hydrophobic. The reference also teaches removing peripheral portions of the coating from the anti-lacerative sheet before adhering a gasket thereto (column 7, lines 10-13; column 8, lines 21-24). However, the reference is silent as to using UV radiation having a wavelength in the range of 100-200 nm to remove the coating.

It is known in the vehicle glazing art to remove peripheral portions of a coating 18 from the surface of a substrate 12 by contacting the coating with short wavelength UV light, as taught by Tweadey (column 4, lines 1-3 and 63-67; column 5, lines 41-43 and 50-51). Tweadey teaches the UV radiation having a wavelength of 198 nm (column 5, lines 49-50).

One reading the Curtze reference as whole would have appreciated that a particular coating removal method is not critical to the invention and therefore would have been motivated to use UV radiation having a wavelength that falls within the claimed range because such is known in the art, as taught by Tweadey, where this method is fast and efficient (Tweadey; column 2, lines 50-52) and less likely to damage the underlying substrate as would mechanical removal methods such as grinding.

Regarding claim 24, Curtze teaches the coating comprising a siloxane (column 8, lines 19-21). Selection of a particular type of siloxane coating would have been within purview of the

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skilled artisan at the time the invention was made depending on the particular function of the coating.

Regarding claim 26, the contact angle is a function of the type of coating and therefore the skilled artisan would have appreciated that the organic, hydrophobic coating of Curtze would have a contact angle similar to that of the organic, hydrophobic coating of the present invention. The skilled artisan would have also appreciated that the contact angle after coating removal would be a function of the amount of coating removed and/or the type of substrate underneath. The skilled artisan would have also appreciated that selection of a contact time would have been within purview of the skilled artisan depending on the type of coating, its thickness, the particular source of UV light, etc.

Regarding claim 27, Curtze teaches applying a primer to the portions of the anti-lacerative sheet from which the coating was removed (column 7, lines 14-16 and 25-27). Curtze teaches applying an adhesive (second primer; column 7, lines 28-30 and 36-37) to the primer.

Regarding claim 28, selection of a particular adhesive would have been within purview of the skilled artisan at the time the invention was made depending on the materials used. It being noted that the claimed adhesives are well known and conventional in the art, wherein the present invention has placed no criticality of the type of adhesive used.

Regarding claim 29, Curtze teaches bonding an elastomeric member 18 to the portions of the anti-lacerative sheet having the primer thereon (column 4, lines 40-44; column 7, lines 25-27).

Regarding claims 30-33, Curtze teaches the elastomeric member being a frame member or gasket (column 4, lines 40-44).

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13. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Curtze et al. and Tweadey et al. as applied to claim 23 above, and further in view of the Kizaki et al. (US 5763892; of record).

Regarding claim 25, Tweadey is silent as to the UV radiation having a wavelength of 172 nm. Selection of a particular wavelength would have been within purview of the skilled artisan at the time the invention was made depending on the particular hydrophobic coating being removed. However, it would have been obvious to use UV radiation having a wavelength of 172 nm because such is known for removing a coating from a substrate, as taught by Kizaki (column 1, lines 16-24; column 15, lines 27 and 45-46 and 52), wherein such a wavelength removes the coating efficiently.

14. Claims 23-24 and 26-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hartig et al. (US 2003/0024180; of record) in view of Tweadey et al. and Curtze et al.

*\*The following rejection is set forth as though the limitation pertaining to the surface being exposed to the exterior of the vehicle was not a new matter issue.*

With respect to claim 1, Hartig is directed to a vehicle glazing comprising a glass substrate 10 having a hydrophobic water-repellant exterior functional coating 20, which is applied to the entire surface of the glass and then removed from the peripheral portions thereof (Figure 5; [0011]; [0014], [0047], [0052]). The reference teaches positioning a gasket (not shown) on a portion of the glass where the coating was removed (Figure 5; p. 6, [0060]). The reference is silent as to removing the coating using UV radiation having a wavelength in the range of 100-200 nm and adhering the gasket to the substrate.



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It is known in the vehicle glazing art to remove peripheral portions of a coating 18 from the surface of a glass substrate 12 by contacting the coating with UV radiation, as taught by Tweadey (column 4, lines 1-3 and 63-67; column 5, lines 41-43 and 50-51). Tweadey teaches the UV radiation having a wavelength of 198 nm (column 5, lines 49-50).

One reading the Hartig reference as whole would have appreciated that a particular coating removal method is not critical to the invention (last sentence of [0078]) and therefore would have been motivated to use UV radiation having a wavelength that falls within the claimed range because such is known in the art, as taught by Tweadey, wherein this method is fast and efficient (Tweadey; column 2, lines 50-52) and less likely to damage the underlying substrate as would mechanical removal methods such as grinding.

It would have been obvious to the skilled artisan at the time the invention was made to adhere the gasket to the glass substrate of Hartig because such is known in the art, as taught by Curtze (column 7, lines 10-13; column 8, lines 21-24), where this keeps the gasket in place while also providing a seal between the gasket and substrate.

Regarding claim 24, one reading the Hartig reference as a whole would have appreciated that no criticality is placed on the type of coating (section [0042]) and therefore selection of a particular type of coating would have been within purview of the skilled artisan at the time the invention was made depending on the intended function thereof. It being noted that the claimed coatings are well known and conventional in the art, wherein the present invention has placed no criticality on the type of coating.

Regarding claim 26, the contact angle is a function of the type of coating and therefore the skilled artisan would have appreciated that the hydrophobic coating of Hartig would have a

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contact angle similar to that of the organic, hydrophobic coating of the present invention. The skilled artisan would have also appreciated that the contact angle after coating removal would be a function of the amount of coating removed and/or the type of substrate underneath. The skilled artisan would have also appreciated that selection of a contact time would have been within purview of the skilled artisan depending on the type of coating, its thickness, the particular source of UV light, etc.

Regarding claims 27 and 29-31, Hartig is silent as to applying a primer and an adhesive to the portion of the glass from which the coating was removed before positioning the gasket thereon and the gasket being elastomeric.

It is known in the art to remove a portion of a coating from the periphery of a substrate so that primer and adhesive (second primer; column 7, lines 28-30 and 36-37) can be applied to this area to facilitate bonding of an elastomeric gasket thereto, as taught by Curtze (discussed above). Therefore, it would have been obvious to the skilled artisan at the time the invention was made to apply a primer and adhesive to the coating-free portions of the substrate of Hartig before positioning the gasket because such is known in the art, as taught by Curtze, where this provides a good seal between the gasket and substrate. It would have been obvious to the skilled artisan to use an elastomeric gasket for that of Hartig because such is known in the art, as taught by Curtze, wherein such material prevents any damage (i.e. scratching) to the glass.

Regarding claim 28, selection of a particular adhesive would have been within purview of the skilled artisan at the time the invention was made depending on the materials used. It being noted that the claimed adhesives are well known and conventional in the art, wherein the present invention has not placed any criticality on the type of adhesive used.

Regarding claims 32-33, the skilled artisan reading Hartig as a whole would have appreciated that the type of item placed on the coating-free portion of the glass is not critical to the invention with gasket only being illustrative. Therefore, selection of a particular item would have been within purview of the skilled artisan at the time the invention was made. It being noted that fastening and mounting devices are well known and conventional in the art.

15. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hartig et al., Tweadey et al., and Curtze et al. as applied to claim 23 above, and further in view of Kizaki et al.

Regarding claim 25, Tweadey is silent as to the UV radiation having a wavelength of 172 nm. Selection of a particular wavelength would have been within purview of the skilled artisan at the time the invention was made depending on the particular hydrophobic coating being removed. However, it would have been obvious to use UV radiation having a wavelength of 172 nm because such is known for removing a coating from a substrate, as taught by Kizaki (column 1, lines 16-24; column 15, lines 27 and 45-46 and 52), wherein such a wavelength removes the coating efficiently.

#### ***Response to Arguments***

16. Applicant's arguments filed 3/24/04 have been fully considered but they are not persuasive.

17. It is noted that pages 7-25 of the arguments mainly pertain to primary references that are no longer being applied as prior art against the present claims.

18. On page 29 of the arguments, Applicant argues that Curtze fails to teach the surface of the glazing, to which the item is adhered, being exposed to the exterior of the vehicle.

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The examiner agrees that Curtze teaches the surface being exposed to the interior of the vehicle (column 5, lines 28-31), but points out that the rejection using Curtze was set forth as though such a limitation was not present in the claim because it presents a new matter issue.

19. On page 32 of the arguments, Applicant argues that Kizaki fails to teach or suggest using UV radiation to remove a hydrophobic coating from a vehicle glazing.

The examiner points out that this reference was only used to show that it is known in coating removal art to use UV radiation having a wavelength of 178 nm.

20. On page 36 of the arguments, Applicant argues that Hartig fails to teach or suggest using UV radiation to remove the coating, but instead suggests using grinding wheels and torches.

The examiner points out that these means are merely illustrative wherein Hartig expressly states that coating removal can be performed using ANY desired coating-removal technique (last sentence in section [0078]). Therefore, based on the teachings of Tweadey, the skilled artisan would have been motivated to use UV radiation, for the reasons set forth in paragraph 14 above.

21. On page 36 of the arguments, Applicant argues that Tweadey is directed to the removal of metallic films and zinc oxide whereas the present invention is concerned with the removal of a hydrophobic coating.

The examiner points out that Tweadey was used as a general teaching for removing a coating from a vehicle glazing by means of UV radiation wherein the skilled artisan would have appreciated that such a removal technique would not be affected by the particulars of the coatings themselves (i.e. hydrophobicity, hydrophilicity, etc.).

22. On page 39 of the arguments, Applicant argues that Kizaki fails to teach or suggest using UV radiation to remove a hydrophobic coating from a vehicle glazing.

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The examiner points out that this reference was only used to show that it is known in coating removal art to use UV radiation having a wavelength of 178 nm.

***Conclusion***

23. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

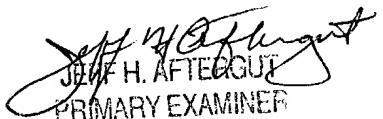
Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Jessica L. Rossi** whose telephone number is **571-272-1223**. The examiner can normally be reached on M-F (8:00-5:30) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard D. Crispino can be reached on 571-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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